

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Previously Presented): A method for managing power to a subscriber identity module (SIM) in a wireless communication device (WCD) when power is supplied to the WCD during operation of the WCD, the method comprising:

supplying power to the SIM when a request is pending for service by the SIM;

supplying power to the SIM when a software module running on the WCD requests maintenance of power to the SIM; and

terminating power to the SIM when no request is pending for service by the SIM and no software module running on the WCD requests maintenance of power to the SIM.

Claim 2 (Original): The method of claim 1, further comprising re-initiating supply of power to the SIM following termination of power to the SIM when a request from the WCD is pending for service by the SIM.

Claim 3 (Currently amended): The method of claim 1, further comprising determining whether a request from the WCD is pending for service by the SIM based on inspection of by inspecting a request queue associated with the SIM.

Claim 4 (Original): The method of claim 1, further comprising re-initiating supply of power to the SIM when a software module running on the WCD requests supply of power to the SIM.

Claim 5 (Currently amended): The method of claim 4, further comprising determining whether a software module running on the WCD requests supply of power to the SIM based on by polling of any of a plurality of software modules running on the WCD.

Claim 6 (Currently amended): The method of claim 4, further comprising:
asserting respective bits in a data structure when corresponding software modules
running on the WCD request supply of power to the SIM;
determining whether a software module running on the WCD requests supply of power to
the SIM based on analysis of by analyzing the data structure; and
when any of the bits in the data structure is asserted, supplying power to the SIM.

Claim 7 (Original): The method of claim 1, wherein supplying power to the SIM includes
maintaining power to the SIM.

Claim 8 (Original): The method of claim 1, wherein the SIM includes an interface circuit that
interfaces with the WCD, and terminating power to the SIM includes terminating power to the
interface circuit.

Claim 9 (Original): The method of claim 1, wherein the SIM includes a power supply line
coupled to the WCD, and terminating power to the SIM includes terminating power to the power
supply line.

Claim 10 (Previously Presented): The method of claim 1, wherein the SIM includes an
interface circuit that interfaces with the WCD, the interface circuit including a clock input to the
SIM , and wherein terminating power to the SIM includes terminating power after terminating a
clock signal to the clock input.

Claim 11 (Previously Presented): The method of claim 1, further comprising:
storing a user access code associated with the SIM in a memory associated with the WCD
in response to a user entering the access code at an initial power up of the WCD;
retrieving the user access code from the memory when power is supplied to the SIM
following the termination of power to the SIM; and
using the retrieved user access code in a security authorization process in the WCD to
authorize use of secure features of the SIM.

Application Number 09/867,363
Amendment dated 3/17/07
Responsive to Office Action mailed 11/13/07

Claim 12 (Original): The method of claim 11, wherein storing the user access code includes storing the user access code upon the termination of power to the SIM.

Claim 13 (Original): The method of claim 11, wherein the SIM is one of a removable user identification module (R-UIM) and a GSM SIM, and the user access code is a card holder verification (CHV) code.

Claim 14 (Original): The method of claim 11, wherein the SIM is a universal subscriber identification module (USIM), and the user access code is a personal identification number (PIN).

Claim 15 (Original): The method of claim 1, wherein the SIM is one of a removable user identification module (R-UIM), a GSM SIM, and a universal subscriber identification module (USIM).

Claim 16 (Original): The method of claim 1, wherein the WCD is one of a cellular radiotelephone, a satellite radiotelephone, a PCMCIA card, and a PDA that communicates according to one of the CDMA standard, the GSM standard, and the WCDMA standard.

Claim 17 (Previously Presented): A system for managing power to a subscriber identity module (SIM) in a wireless communication device (WCD) when power is supplied to the WCD during operation of the WCD, the system comprising:

- a power source coupled to the SIM; and
- a processor that controls the power source to:
 - (a) supply power from the power source to the SIM when a request from the WCD is pending for service by the SIM,
 - (b) supply power from the power source to the SIM when a software module running on the WCD requests maintenance of power to the SIM, and
 - (c) terminate power to the SIM when no request from the WCD is pending for service by the SIM and no software module running on the WCD requests supply of power to the SIM.

Claim 18 (Original): The system of claim 17, wherein the processor controls the power source to re-initiate supply of power to the SIM following termination of power to the SIM when a request from the WCD is pending for service by the SIM.

Claim 19 (Currently amended): The system of claim 17, wherein the processor determines whether a request from the WCD is pending for service by the SIM based on inspection of by inspecting a request queue associated with the SIM.

Claim 20 (Original): The system of claim 17, wherein the processor controls the power source to re-initiate supply of power to the SIM when a software module running on the WCD requests supply of power to the SIM.

Claim 21 (Currently amended): The system of claim 20, wherein the processor determines whether a software module running on the WCD requests supply of power to the SIM based on by polling of any of a plurality of software modules running on the WCD.

Claim 22 (Currently amended): The system of claim 20, further comprising a memory storing a data structure with bits corresponding to software modules running on the WCD, wherein the processor asserts respective bits in the data structure when corresponding software modules running on the WCD request supply of power to the SIM, determines whether a software module running on the WCD requests supply of power to the SIM based on analysis of by analyzing the data structure, and, when any of the bits in the data structure is asserted, controls the power source to supply power to the SIM.

Claim 23 (Original): The system of claim 17, wherein the processor controls the power source to maintain power to the SIM.

Claim 24 (Original): The system of claim 17, wherein the SIM includes an interface circuit that interfaces with the WCD, and the processor controls the power source to terminate power to the SIM by terminating power to the interface circuit.

Claim 25 (Original): The system of claim 17, wherein the SIM includes a power supply line coupled to the WCD, and the processor controls the power source to terminate power to the SIM by terminating power to the power supply line.

Claim 26 (Previously Presented): The system of claim 17, wherein the SIM includes an interface circuit that interfaces with the WCD, the interface circuit including a clock input to the SIM, and wherein the processor controls the power source to terminate power to the SIM by terminating power after terminating a clock signal to the clock input.

Claim 27 (Previously Presented): The system of claim 17, further comprising a memory associated with the WCD that stores a user access code associated with the SIM in response to a user entering the access code at an initial power up of the WCD, wherein the processor retrieves the user access code from the memory when power is supplied to the SIM following the termination of power to the SIM, and uses the retrieved user access code in a security authorization process in the WCD to authorize use of the secure features SIM.

Claim 28 (Original): The system of claim 27, wherein the processor stores the user access code upon the termination of power to the SIM.

Claim 29 (Original): The system of claim 27, wherein the SIM is one of a removable user identification module (R-UIM) and a GSM SIM, and the user access code is a card holder verification (CHV) code.

Claim 30 (Original): The system of claim 27, wherein the SIM is a universal subscriber identification module (USIM), and the user access code is a personal identification number (PIN).

Claim 31 (Original): The system of claim 17, wherein the SIM is one of a removable user identification module (R-UIM), a GSM SIM, and a universal subscriber identification module (USIM).

Claim 32 (Original): The system of claim 17, wherein the WCD is one of a cellular radiotelephone, a satellite radiotelephone, a PCMCIA card, and a PDA that communicates according to one of the CDMA standard, the GSM standard, and the WCDMA standard.

Claim 33 (Previously Presented): A computer-readable medium containing instructions that cause a programmable processor to manage power to a subscriber identity module (SIM) of a wireless communication device (WCD) when power is supplied to the WCD during operation of the WCD:

supply power to the SIM when a request from the WCD is pending for service by the SIM;

supply power to the SIM when a software module running on the WCD requests maintenance of power to the SIM; and

terminate power to the SIM when no request from the WCD is pending for service by the SIM and no software module running on the WCD requests supply of power to the SIM.

Claim 34 (Original): The computer-readable medium of claim 33, wherein the instructions cause the processor to re-initiate supply of power to the SIM following termination of power to the SIM when a request from the WCD is pending for service by the SIM.

Claim 35 (Currently amended): The computer-readable medium of claim 33, wherein the instructions cause the processor to determine whether a request from the WCD is pending for service by the SIM based on inspection of by inspecting a request queue associated with the SIM.

Claim 36 (Original): The computer-readable medium of claim 33, wherein the instructions cause the processor to re-initiate supply of power to the SIM when a software module running on the WCD requests supply of power to the SIM.

Claim 37 (Currently amended): The computer-readable medium of claim 36, wherein the instructions cause the processor to determine whether a software module running on the WCD requests supply of power to the SIM based on by polling of any of a plurality of software modules running on the WCD.

Claim 38 (Currently amended): The computer-readable medium of claim 36, wherein the instructions cause the processor to:

define a data structure with bits corresponding to software modules running on the WCD;

assert respective bits in the data structure when corresponding software modules running on the WCD request supply of power to the SIM;

determine whether a software module running on the WCD requests supply of power to the SIM based on analysis of by analyzing the data structure; and

when any of the bits in the data structure is asserted, supply power to the SIM.

Claim 39 (Original): The computer-readable medium of claim 37, wherein the instructions cause the processor to supply power to the SIM by maintaining power to the SIM.

Claim 40 (Original): The computer-readable medium of claim 33, wherein the SIM includes an interface circuit that interfaces with the WCD, and the instructions cause the processor to terminate power to the SIM by terminating power to the interface circuit.

Claim 41 (Original): The computer-readable medium of claim 33, wherein the SIM includes a power supply line coupled to the WCD, and the instructions cause the processor to terminate power to the SIM by terminating power to the power supply line.

Claim 42 (Previously Presented): The computer-readable medium of claim 33, wherein the SIM includes an interface circuit that interfaces with the WCD, the interface circuit including a clock input to the SIM , and the instructions cause the processor to terminate power to the SIM by terminating power after terminating a clock signal to the clock input.

Claim 43 (Previously Presented): The computer-readable medium of claim 33, wherein the instructions cause the processor to:

store a user access code associated with the SIM in a memory associated with the WCD in response to a user entering the access code at an initial power up of the WCD;

retrieve the user access code from the memory when power is supplied to the SIM following the termination of power to the SIM; and

use the retrieved user access code in a security authorization process in the WCD to authorize use of the WCD.

Claim 44 (Original): The computer-readable medium of claim 43, wherein the instructions cause the processor to store the user access code upon the termination of power to the SIM.

Claim 45 (Original): The computer-readable medium of claim 43, wherein the SIM is one of a removable user identification module (R-UIM) and a GSM SIM, and the user access code is a card holder verification (CHV) code.

Claim 46 (Original): The computer-readable medium of claim 43, wherein the SIM is a universal subscriber identification module (USIM), and the user access code is a personal identification number (PIN).

Claim 47 (Original): The computer-readable medium of claim 33, wherein the SIM is one of a removable user identification module (R-UIM), a GSM SIM, and a universal subscriber identification module (USIM).

Claim 48 (Original): The computer-readable medium of claim 33, wherein the WCD is one of a cellular radiotelephone, a satellite radiotelephone, a PCMCIA card, and a PDA that communicates according to one of the CDMA standard, the GSM standard, and the WCDMA standard.

Claim 49 (Previously Presented): A method comprising:

storing a user access code associated with a subscriber identity module (SIM) in a memory associated with a wireless communication device (WCD) in response to a user entering the access code at an initial power up of the WCD;

retrieving the user access code from the memory when power is resupplied to the SIM;

using the retrieved user access code in a security authorization process in the WCD to authorize use of secure features of the SIM;

terminating power to the SIM when no request from the WCD is pending for service by the SIM and no software module running on the WCD requests supply of power to the SIM;

terminating power to the SIM when power to the WCD is terminated

retrieving and using the user access code when power is resupplied to the SIM following termination of power to the SIM when no request from the WCD is pending for service by the SIM and no software module running on the WCD requests supply of power to the SIM; and

accepting and using user input as the user access code when power is resupplied to the SIM following termination when power to the WCD is terminated.

Claim 50-51 (Cancelled).

Claim 52 (Original): The method of claim 49, wherein storing the user access code includes storing the user access code when power to the SIM is terminated.

Claim 53 (Original): The method of claim 49, wherein the SIM is one of a removable user identification module (R-UIM) and a GSM SIM, and the user access code is a card holder verification (CHV) code.

Claim 54 (Original): The method of claim 49, wherein the SIM is a universal subscriber identification module (USIM), and the user access code is a personal identification number (PIN).

Claim 55 (Original): The method of claim 49, wherein the SIM is one of a removable user identification module (R-UIM), a GSM SIM, and a universal subscriber identification module (USIM).

Claim 56 (Original): The method of claim 49, wherein the WCD is one of a cellular radiotelephone, a satellite radiotelephone, a PCMCIA card, and a PDA that communicates according to one of the CDMA standard, the GSM standard, and the WCDMA standard.

Claim 57 (Previously Presented): A system comprising:

a memory that stores a user access code associated with a subscriber identity module (SIM) in a memory associated with a wireless communication device (WCD) in response to a user entering the access code at an initial power up of the WCD; and

a processor that retrieves the user access code from the memory when power is resupplied to the SIM, uses the retrieved user access code in a security authorization process in the WCD to authorize use of the WCD, terminates power to the SIM when no request from the WCD is pending for service by the SIM and no software module running on the WCD requests supply of power to the SIM, terminates power to the SIM when power to the WCD is terminated, retrieves and uses the user access code when power is resupplied to the SIM following termination of power to the SIM when no request from the WCD is pending for service by the SIM and no software module running on the WCD requests supply of power to the SIM, and accepts and uses user input as the user access code when power is resupplied to the SIM following termination of power to the SIM when power to the WCD is terminated.

Claims 58-59 (Cancelled).

Claim 60 (Original): The system of claim 57, wherein the processor stores the user access code in the memory when power to the SIM is terminated.

Claim 61 (Original): The system of claim 57, wherein the SIM is one of a removable user identification module (R-UIM) and a GSM SIM, and the user access code is a card holder verification (CHV) code.

Claim 62 (Original): The system of claim 57, wherein the SIM is a universal subscriber identification module (USIM), and the user access code is a personal identification number (PIN).

Claim 63 (Original): The system of claim 57, wherein the SIM is one of a removable user identification module (R-UIM), a GSM SIM, and a universal subscriber identification module (USIM).

Claim 64 (Original): The system of claim 57, wherein the WCD is one of a cellular radiotelephone, a satellite radiotelephone, a PCMCIA card, and a PDA that communicates according to one of the CDMA standard, the GSM standard, and the WCDMA standard.

Claim 65 (Previously Presented): A computer-readable medium containing instructions that cause a processor to:

store a user access code associated with a SIM in a memory associated with a wireless communication device (WCD) in response to a user entering the access code at an initial power up of the WCD;

retrieve the user access code from the memory when power is resupplied to the SIM;

use the retrieved user access code in a security authorization process in the WCD to authorize use of the WCD;

terminate power to the SIM when no request from the WCD is pending for service by the SIM and no software module running on the WCD requests supply of power to the SIM;

terminate power to the SIM when power to the WCD is terminated;

retrieve and use the user access code when power is resupplied to the SIM following termination of power to the SIM when no request from the WCD is pending for service by the SIM and no software module running on the WCD requests supply of power to the SIM; and

accept and use user input as the user access code when power is resupplied to the SIM following termination of power to the SIM when power to the WCD is terminated.

Claims 66-67 (Cancelled).

Claim 68 (Original): The computer-readable medium of claim 65, wherein the instructions cause the processor to store the user access code when power to the SIM is terminated.

Claim 69 (Original): The computer-readable medium of claim 65, wherein the SIM is one of a removable user identification module (R-UIM) and a GSM SIM, and the user access code is a card holder verification (CHV) code.

Claim 70 (Original): The computer-readable medium of claim 65, wherein the SIM is a universal subscriber identification module (USIM), and the user access code is a personal identification number (PIN).

Claim 71 (Original): The computer-readable medium of claim 65, wherein the SIM is one of a removable user identification module (R-UIM), a GSM SIM, and a universal subscriber identification module (USIM).

Claim 72 (Original): The computer-readable medium of claim 65, wherein the WCD is one of a cellular radiotelephone, a satellite radiotelephone, a PCMCIA card, and a PDA that communicates according to one of the CDMA standard, the GSM standard, and the WCDMA standard.

Claim 73 (Previously Presented): The computer-readable medium of claim 65, wherein the user access code enables access to secure features of the SIM.

Claim 74 (New): A wireless communication device (WCD) including a subscriber identity module (SIM) and means for managing power to the SIM when power is supplied to the WCD during operation of the WCD, the WCD comprising:

means for supplying power to the SIM when a request is pending for service by the SIM;
means for supplying power to the SIM when a software module running on the WCD requests maintenance of power to the SIM; and
means for terminating power to the SIM when no request is pending for service by the SIM and no software module running on the WCD requests maintenance of power to the SIM.

Claim 75 (New): The WCD of claim 74, further comprising means for re-initiating supply of power to the SIM following termination of power to the SIM when a request from the WCD is pending for service by the SIM.

Claim 76 (New): The WCD of claim 74, further comprising means for determining whether a request from the WCD is pending for service by the SIM based on inspection of a request queue associated with the SIM.

Claim 77 (New): The WCD of claim 74, further comprising means for re-initiating supply of power to the SIM when a software module running on the WCD requests supply of power to the SIM.

Claim 78 (New): The WCD of claim 77, further comprising means for determining whether a software module running on the WCD requests supply of power to the SIM based on polling of any of a plurality of software modules running on the WCD.

Claim 79 (New): The WCD of claim 77, further comprising:
means for asserting respective bits in a data structure when corresponding software modules running on the WCD request supply of power to the SIM;
means for determining whether a software module running on the WCD requests supply of power to the SIM based on analysis of the data structure; and
means for supplying power to the SIM when any of the bits in the data structure is asserted.

Claim 80 (New): The WCD of claim 74, wherein the means for supplying power to the SIM includes means for maintaining power to the SIM.

Claim 81 (New): The WCD of claim 74, wherein the SIM includes an interface circuit that interfaces with the WCD, and the means for terminating power to the SIM includes means for terminating power to the interface circuit.

Claim 82 (New): The WCD of claim 74, wherein the SIM includes a power supply line coupled to the WCD, and the means for terminating power to the SIM includes means for terminating power to the power supply line.

Claim 83 (New): The WCD of claim 74, wherein the SIM includes an interface circuit that interfaces with the WCD, the interface circuit including a clock input to the SIM , and wherein means for terminating power to the SIM includes means for terminating power after terminating a clock signal to the clock input.

Claim 84 (New): The WCD of claim 74, further comprising:

means for storing a user access code associated with the SIM in a memory associated with the WCD in response to a user entering the access code at an initial power up of the WCD;

means for retrieving the user access code from the memory when power is supplied to the SIM following the termination of power to the SIM; and

means for using the retrieved user access code in a security authorization process in the WCD to authorize use of secure features of the SIM.

Claim 85 (New): The WCD of claim 84, wherein the means for storing the user access code stores the user access code upon the termination of power to the SIM.

Claim 86 (New): The WCD of claim 84, wherein the SIM is one of a removable user identification module (R-UIM) and a GSM SIM, and the user access code is a card holder verification (CHV) code.

Claim 87 (New): The WCD of claim 84, wherein the SIM is a universal subscriber identification module (USIM), and the user access code is a personal identification number (PIN).

Claim 88 (New): The WCD of claim 74, wherein the SIM is one of a removable user identification module (R-UIM), a GSM SIM, and a universal subscriber identification module (USIM).

Claim 89 (New): The WCD of claim 74, wherein the WCD is one of a cellular radiotelephone, a satellite radiotelephone, a PCMCIA card, and a PDA that communicates according to one of the CDMA standard, the GSM standard, and the WCDMA standard.

Claim 90 (New): A wireless communication device (WCD) including a subscriber identity module (SIM), wherein the WCD manages power to the SIM when power is supplied to the WCD during operation of the WCD, the WCD comprising:

a power source coupled to the SIM; and

a processor that controls the power source to:

- (a) supply power from the power source to the SIM when a request from the WCD is pending for service by the SIM,
- (b) supply power from the power source to the SIM when a software module running on the WCD requests maintenance of power to the SIM, and
- (c) terminate power to the SIM when no request from the WCD is pending for service by the SIM and no software module running on the WCD requests supply of power to the SIM.

Claim 91 (New): The WCD of claim 90, wherein the processor controls the power source to re-initiate supply of power to the SIM following termination of power to the SIM when a request from the WCD is pending for service by the SIM.

Claim 92 (New): The WCD of claim 90, wherein the processor determines whether a request from the WCD is pending for service by the SIM based on inspection of a request queue associated with the SIM.

Claim 93 (New): The WCD of claim 90, wherein the processor controls the power source to re-initiate supply of power to the SIM when a software module running on the WCD requests supply of power to the SIM.

Claim 94 (New): The WCD of claim 93, wherein the processor determines whether a software module running on the WCD requests supply of power to the SIM based on polling of any of a plurality of software modules running on the WCD.

Claim 95 (New): The WCD of claim 93, further comprising a memory storing a data structure with bits corresponding to software modules running on the WCD, wherein the processor asserts respective bits in the data structure when corresponding software modules running on the WCD request supply of power to the SIM, determines whether a software module running on the WCD requests supply of power to the SIM based on analysis of the data structure and, when any of the bits in the data structure is asserted, controls the power source to supply power to the SIM.

Claim 96 (New): The WCD of claim 90, wherein the processor controls the power source to maintain power to the SIM.

Claim 97 (New): The WCD of claim 90, wherein the SIM includes an interface circuit that interfaces with the WCD, and the processor controls the power source to terminate power to the SIM by terminating power to the interface circuit.

Claim 98 (New): The WCD of claim 90, wherein the SIM includes a power supply line coupled to the WCD, and the processor controls the power source to terminate power to the SIM by terminating power to the power supply line.

Claim 99 (New): The WCD of claim 90, wherein the SIM includes an interface circuit that interfaces with the WCD, the interface circuit including a clock input to the SIM, and wherein

the processor controls the power source to terminate power to the SIM by terminating power after terminating a clock signal to the clock input.

Claim 100 (New): The WCD of claim 90, further comprising a memory that stores a user access code associated with the SIM in response to a user entering the access code at an initial power up of the WCD, wherein the processor retrieves the user access code from the memory when power is supplied to the SIM following the termination of power to the SIM, and uses the retrieved user access code in a security authorization process in the WCD to authorize use of the secure features SIM.

Claim 101 (New): The WCD of claim 100, wherein the processor stores the user access code upon the termination of power to the SIM.

Claim 102 (New): The WCD of claim 100, wherein the SIM is one of a removable user identification module (R-UIM) and a GSM SIM, and the user access code is a card holder verification (CHV) code.

Claim 103 (New): The WCD of claim 100, wherein the SIM is a universal subscriber identification module (USIM), and the user access code is a personal identification number (PIN).

Claim 104 (New): The WCD of claim 90, wherein the SIM is one of a removable user identification module (R-UIM), a GSM SIM, and a universal subscriber identification module (USIM).

Claim 105 (New): The WCD of claim 90, wherein the WCD is one of a cellular radiotelephone, a satellite radiotelephone, a PCMCIA card, and a PDA that communicates according to one of the CDMA standard, the GSM standard, and the WCDMA standard.